AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE

Serial Number: 09/993,333

Filing Date: November 14, 2001

Title: REDUCTION OF ANTIOXIDANT ENZYME LEVELS IN TUMOR CELLS USING ANTISENSE OLIGONUCLEOTIDES

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Please amend the claims as follows.

1. (Cancelled)

2. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antisense nucleic

acid is about 20 nucleotides in length.

3. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antisense nucleic

acid sequence is phosphorothiolated.

4. (Cancelled)

5. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antioxidant

enzyme is catalase or phospholipid glutathione peroxidase.

6. (Currently amended) An oligonucleotide comprising an antisense nucleic acid sequence

that is about 18 to 26 nucleotides in length, is at least 90% complementary to and is capable of

specifically binding to a contiguous portion of a nucleic acid that includes a start codon for a

encodes a human antioxidant enzyme selected from the group consisting of wherein the

antioxidant enzyme is manganese superoxide dismutase, copper and zinc superoxide dismutase,

catalase, phospholipid glutathione peroxidase, and or cytosolic glutathione peroxidase; wherein

the contiguous portion includes the start codon of the nucleic acid encoding the human

antioxidant enzyme.

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7. (Currently amended) An oligonucleotide comprising an antisense nucleic acid sequence that is about 18 to 26 nucleotides in length, is 100% complementary to and is capable of specifically binding to a contiguous portion of a nucleic acid that encodes a includes a start eodon for human antioxidant enzyme selected from the group consisting of wherein the antioxidant enzyme is manganese superoxide dismutase, copper and zinc superoxide dismutase, catalase, phospholipid glutathione peroxidase, and or cytosolic glutathione peroxidase; wherein the contiguous portion includes the start codon of the nucleic acid encoding the human antioxidant enzyme.

- 8. (Currently amended) A method of treating a tumor in a mammal comprising reducing antioxidant enzyme levels in a cell by administering a therapeutic agent comprising an antisense nucleic acid sequence that is about 18 to 26 nucleotides in length and is capable of specifically binding to a contiguous portion of a nucleic acid that encodes includes a start codon for a human manganese superoxide dismutase, and wherein the contiguous portion includes the start codon of the nucleic acid encoding the human manganese superoxide dismutase.
- 9-10. (Cancelled)
- 11. (Previously presented) The method of claim 8, wherein the therapeutic agent is injected into the tumor.
- 12. (Original) The method of claim 8, wherein the mammal is a human.
- 13. (Original) The method of claim 8, wherein the therapeutic agent further comprises a delivery vehicle.
- 14. (Original) The method of claim 13, wherein the delivery vehicle is lipofectamine or -[1-(2,3-dioleoyloxy)propyl]-*N,N,N*-trimethylammonium methyl sulfate ("DOTAP").

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15. (Previously presented) The method of claim 8, wherein the antisense nucleic acid sequence is phosphorothiolated.

16-17. (Cancelled)

- 18. (Previously Presented) The method of claim 8, wherein the antisense nucleic acid sequence is 90% complementary to the portion of the nucleic acid for the antioxidant enzyme.
- 19. (Previously Presented) The method of claim 8, wherein the antisense nucleic acid sequence is 100% complementary to the portion of the nucleic acid for the antioxidant enzyme.
- 20. (Previously Presented) An oligonucleotide comprising an antisense nucleic acid sequence that specifically binds to a nucleic acid encoding an antioxidant enzyme start codon, wherein the sequence is SEQ ID NO:2.
- 21. (Previously Presented) The oligonucleotide of claim 20, wherein the antisense nucleic acid sequence is phosphorothiolated.
- 22. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antioxidant enzyme is manganese superoxide dismutase.
- 23. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antioxidant enzyme is copper and zinc superoxide dismutase.
- 24. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antioxidant enzyme is catalase.
- 25. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antioxidant enzyme is phospholipid glutathione peroxidase.

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26. (Previously Presented) The oligonucleotide of claim 6 or 7, wherein the antioxidant enzyme is cytosolic glutathione peroxidase.